



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-0931; Project Identifier MCAI-2022-00653-R; Amendment 39-22493; AD 2023-13-08]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2021-05-03 for certain Airbus Helicopters Model EC225LP helicopters. AD 2021-05-03 required various inspections of a certain part-numbered left-hand (LH) engine fuel supply (fuel supply) hose and depending on the inspection results, reinstalling or removing the fuel supply hose from service. AD 2021-05-03 also required installing an improved part and prohibited installing an affected fuel supply hose on any helicopter unless it was installed by following certain procedures. Since the FAA issued AD 2021-05-03, there were reports of difficulties using an adjusting tool to install the improved fuel supply hose. This AD continues to require the actions of AD 2021-05-03, expands the applicability, expands the parts installation limitations, and requires using an improved adjusting tool and updated procedures. This AD also updates certain compliance times and clarifies certain requirements. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of January 27, 2022 (86 FR 72824, December 23, 2021).

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0931; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For Airbus Helicopters service information identified in this final rule, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; phone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at airbus.com/helicopters/services/technical-support.html.

- You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0931.

Other Related Service Information: Other Airbus Helicopters service information identified in this final rule is available at the Airbus Helicopters contact information under *Material Incorporated by Reference* above. You may also view this service information at the FAA contact information under *Material Incorporated by Reference* above.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aviation Safety Engineer, FAA, 26805 E 68th Ave., Mail Stop: Room 214, Denver, CO 80249; telephone (303) 342-1080; email: hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021-05-03, Amendment 39-21864 (86 FR 72824, December 23, 2021) (AD 2021-05-03). AD 2021-05-03 applied to Airbus Helicopters Model EC225LP helicopters with an LH fuel supply hose part number (P/N) 704A34416087 installed. AD 2021-05-03 required visually inspecting the LH fuel supply hose for twisting, and if needed, borescope inspecting the entire length of the inside of the fuel supply hose for twisting. Depending on the inspection results, AD 2021-05-03 required reinstalling or removing the fuel supply hose from service. Additionally, AD 2021-05-03 prohibited installing that part-numbered LH fuel supply hose on any helicopter unless that LH fuel supply hose was installed by following certain procedures described in the manufacturer's service bulletin. Finally, AD 2021-05-03 required modifying your helicopter by removing LH fuel supply hose P/N 704A34416087 from service and installing the improved LH fuel supply hose P/N 704A34416101. The FAA issued AD 2021-05-03 to prevent restricted fuel flow to the LH engine, which if not addressed, could result in a decrease of the LH engine power when accelerating to a power setting corresponding to One Engine Inoperative power and subsequent reduced control of the helicopter.

The NPRM published in the *Federal Register* on April 18, 2023 (88 FR 23586). The NPRM was prompted by European Union Aviation Safety Agency (EASA) AD 2022-0087, dated May 16, 2022 (EASA AD 2022-0087) which superseded EASA AD 2021-0156, dated July 2, 2021 (EASA AD 2021-0156), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for all Airbus Helicopters Model EC 225 LP helicopters. EASA advises of difficulties that were reported during installation of the improved LH fuel supply hose due to using an inappropriately shaped adjusting tool. Accordingly, EASA AD 2022–0087 retains the requirements of EASA AD 2021–0156 and requires replacing the affected part with the improved part by following updated modification instructions and using an improved adjusting tool. The updated modification instructions also specify

updated torque values for the junction nuts and re-tightening instructions for helicopters modified with previous instructions. EASA AD 2022–0087 requires a repetitive inspection for fuel leakage for those helicopters modified with previous instructions and considers the re-tightening of the junction nuts of the improved part as terminating action for the repetitive inspection requirements. You may examine EASA AD 2022-0087 in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0931.

In the NPRM, for helicopters with LH fuel supply hose P/N 704A34416087 installed, the FAA proposed to require visually inspecting the LH fuel supply hose for twisting, and if needed, borescope inspecting the entire length of the inside of the fuel supply hose for twisting. Depending on the inspection results, the NPRM proposed to require reinstalling or removing the fuel supply hose from service. The NPRM also proposed to require modifying the helicopter by removing LH fuel supply hose P/N 704A34416087 from service and installing improved LH fuel supply hose P/N 704A34416101 using updated procedures. Additionally, for helicopters modified with the improved LH fuel supply hose P/N 704A34416101 using previous procedures or if the installation procedures cannot be determined, the NPRM proposed to require repetitive inspections for fuel leakage and, depending on the results, tightening the junction nuts of this improved fuel supply hose with the LH side engine removed. Tightening the junction nuts would provide terminating action for the repetitive fuel leakage inspections. Lastly, the NPRM proposed to require installation limitations for LH fuel supply hose P/N 704A34416087 and LH fuel supply hose P/N 704A34416101.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data

and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information under 1 CFR Part 51

The FAA reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. EC225-28A026, Revision 1, dated May 6, 2022 (ASB EC225-28A026 Rev 1), which specifies procedures for modifying the adjusting tool and replacing the LH fuel supply hose by using the modified adjusting tool. ASB EC225-28A026 Rev 1 also specifies updated allowable torque limits for the junction nuts and, for helicopters that have previously accomplished Airbus Helicopters ASB No. EC225-28A026, Revision 0, dated May 21, 2021, ASB EC225-28A026 Rev 1 specifies procedures to repetitively inspect the junction nuts for fuel leakage until the LH engine is removed and the updated allowable torque limit is applied to the junction nuts.

This AD also requires Airbus Helicopters ASB No. EC225-71A019, Revision 2, dated May 21, 2021, which the Director of the Federal Register approved for incorporation by reference as of January 27, 2022 (86 FR 72824, December 23, 2021).

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Other Related Service Information

The FAA also reviewed Airbus Helicopters ASB No. EC225-71A019, Revision 1, dated February 28, 2019. This service information specifies procedures for removing the fuel supply hose from the LH power plant, visually inspecting the fuel supply hose for twisting, and depending on inspection results, performing an endoscope inspection on the inside of the hose.

Differences Between this AD and EASA AD 2022-0087

EASA AD 2022-0087 is applicable to all serial-numbered Model EC225LP helicopters, whereas this AD applies to Model EC225LP helicopters with certain part-numbered LH fuel supply hoses installed.

For helicopters modified with LH fuel supply hose P/N 704A34416101 in accordance with previous instructions or by installation of AH modification 0728745

prior to initial delivery of the helicopter from the manufacturer, EASA AD 2022-0087 requires re-tightening the junction nuts to the new torque values during the next (re)installation of the LH engine or of the improved fuel supply hose, whereas this AD requires that action within 110 hours time-in-service with the LH side engine removed for helicopters with LH fuel supply hose P/N 704A34416101 installed with previous instructions, by installation of AH modification 0728745 prior to initial delivery of the helicopter from the manufacturer, or if the previously accomplished installation procedures cannot be determined. Also, for those helicopters, depending on the interim fuel leakage inspection results, EASA AD 2022-0087 requires corrective action in accordance with approved maintenance instructions, whereas this AD requires tightening the junction nuts to the new torque values with the LH engine removed.

Costs of Compliance

The FAA estimates that this AD affects up to 28 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Visually inspecting the LH fuel supply hose for twisting takes about 1 work-hour for an estimated cost of \$85 per helicopter and \$2,380 for the U.S. fleet. Borescope inspecting the LH fuel supply hose takes about 8 work-hours for an estimated cost of \$680 per helicopter.

Replacing an LH fuel supply hose takes up to 11 work-hours and parts cost about \$2,363 for an estimated replacement cost of up to \$3,298 per replacement.

Inspecting for fuel leakage takes about 1 work-hour for an estimated cost of \$85 per helicopter, per inspection cycle. Removing the LH engine and tightening the LH fuel supply hose fittings takes 8 work-hours for an estimated cost of \$680 per helicopter.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive 2021-05-03, Amendment 39-21864 (86 FR 72824, December 23, 2021); and
- b. Adding the following new airworthiness directive:

2023-13-08 Airbus Helicopters: Amendment 39-22493; Docket No. FAA-2023-0931;
Project Identifier MCAI-2022-00653-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2021-05-03, Amendment 39-21864 (86 FR 72824, December 23, 2021).

(c) Applicability

This AD applies to Airbus Helicopters Model EC225LP helicopters, certificated in any category, with a left-hand side (LH) engine fuel supply (fuel supply) hose part number (P/N) 704A34416087 or P/N 704A34416101 installed.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 2820, Aircraft Fuel Distribution System.

(e) Unsafe Condition

This AD was prompted by a report of an incorrect installation of the LH fuel supply hose P/N 704A34416087. The FAA is issuing this AD to prevent restricted fuel flow to the LH engine. The unsafe condition, if not addressed, could result in a decrease of the LH engine power when accelerating to a power setting corresponding to One Engine Inoperative power and subsequent reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For helicopters with LH fuel supply hose P/N 704A34416087 installed, within 110 hours time-in-service (TIS) or 6 months after the effective date of this AD, whichever occurs first, visually inspect the LH fuel supply hose for twisting as shown in Figures 1 and 2 of Airbus Helicopters Alert Service Bulletin (ASB) No. EC225-71A019, Revision 2, dated May 21, 2021 (ASB EC225-71A019 Rev 2). If the LH fuel supply hose has any twisting or if it cannot be determined if the LH fuel supply hose has any twisting,

before further flight, borescope inspect the entire length of the inside of the fuel supply hose for twisting as shown in Figures 3 through 5 of ASB EC225-71A019 Rev 2.

(i) If the inside of the LH fuel supply hose has any twisting, before further flight, remove the LH fuel supply hose from service and install an airworthy LH fuel supply hose in accordance with the actions required by paragraphs (g)(2) or (4) of this AD.

(ii) If the inside of the LH fuel supply hose does not have any twisting, reinstall the LH fuel supply hose by following the Accomplishment Instructions, paragraph 3.B.3.b., of ASB EC225-71A019 Rev 2.

(2) For helicopters with LH fuel supply hose P/N 704A34416087 installed, within 1,200 hours TIS or 36 months after the effective date of this AD, whichever occurs first, modify your helicopter by removing from service LH fuel supply hose P/N 704A34416087 and installing LH fuel supply hose P/N 704A34416101 in accordance with the Accomplishment Instructions, paragraph 3.B.2.b., of Airbus Helicopters ASB No. EC225-28A026, Revision 1, dated May 6, 2022 (ASB EC225-28A026 Rev 1).

(3) For helicopters with LH fuel supply hose P/N 704A34416101 previously installed by accomplishing Airbus Helicopters ASB No. EC225-28A026, Revision 0, dated May 21, 2021, by installation of AH modification 0728745 prior to initial delivery of the helicopter from the manufacturer, or if the previously accomplished installation procedures cannot be determined, accomplish the actions required by paragraph (g)(3)(i) of this AD.

(i) Within 15 hours TIS or 7 days after the effective date of this AD, whichever occurs first, and thereafter at intervals not to exceed 15 hours TIS or 7 days, whichever occurs first, inspect the LH fuel supply hose for fuel leakage in the area of each junction nut (items 1a and 1b) as depicted in Figure 1 of ASB EC225-28A026 Rev 1.

(A) If there is any fuel leakage, before further flight, remove the LH side engine and tighten each junction nut (items 1a and 1b) of the LH fuel supply hose by applying the torque depicted in Figure 1 of ASB EC225-28A026 Rev 1.

(B) If there is no fuel leakage, within 110 hours TIS after the effective date of this AD, remove the LH side engine and tighten each junction nut (items 1a and 1b) of the LH fuel supply hose by applying the torque depicted in Figure 1 of ASB EC225-28A026

Rev 1.

(ii) Tightening the junction nuts as required by paragraphs (g)(3)(i)(A) and (B) of this AD constitutes terminating action for the repetitive inspection required by paragraph (g)(3)(i) of this AD.

(4) For helicopters with LH fuel supply hose P/N 704A34416087 installed, as of the effective date of this AD, you may replace an LH fuel supply hose P/N 704A34416087 with an LH fuel supply hose P/N 704A34416087 or reinstall an LH fuel supply hose P/N 704A34416087 on any helicopter by following the Accomplishment Instructions, paragraph 3.B.3.b., of ASB EC225-71A019 Rev 2, until required to install LH fuel supply hose P/N 704A34416101 by paragraph (g)(2) of this AD, provided one of the conditions in paragraphs (g)(4)(i) through (iii) of this AD is met.

(i) If installing, the LH fuel supply hose P/N 704A34416087 is new (zero total hours TIS).

(ii) If reinstalling, before reinstallation, the LH fuel supply hose P/N 704A34416087 is inspected by accomplishing the actions required by the introductory text of paragraph (g)(1) of this AD and the inside of the LH fuel supply hose does not have any twisting.

(iii) If reinstalling, the initial delivery of the helicopter from the manufacturer was on or after November 30, 2018, and the LH fuel supply hose P/N 704A34416087 has never been previously reinstalled.

(5) For helicopters with an LH fuel supply hose P/N 704A34416101 installed, as of the effective date of this AD, do not remove LH fuel supply hose P/N 704A34416101 and replace it with LH fuel supply hose P/N 704A34416087 and do not install an LH engine with an LH fuel supply hose P/N 704A34416087 installed.

(h) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g)(1) of this AD, if those actions were performed before the effective date of this AD using Airbus Helicopters ASB No. EC225-71A019, Revision 1, dated February 28, 2019.

(i) Special Flight Permits

Special flight permits may be permitted provided that there are no passengers on

board and that helicopters identified in paragraph (g)(3) of this AD have no fuel leakage.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Additional Information

(1) Refer to European Union Aviation Safety Agency (EASA) AD 2022-0087, dated May 16, 2022, for related information. This EASA AD may be found in the AD docket at regulations.gov under Docket No. FAA-2023-0931.

(2) For more information about this AD, contact Hal Jensen, Aerospace Engineer, FAA, 26805 E 68th Ave., Mail Stop: Room 214, Denver, CO 80249; telephone (303) 342-1080; email hal.jensen@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the contact information specified in paragraphs (l)(5) and (6) of this AD.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]

(i) Airbus Helicopters Alert Service Bulletin No. EC225-28A026, Revision 1, dated May 6, 2022.

(ii) [Reserved]

(4) The following service information was approved for IBR on January 27, 2022 (86 FR 72824, December 23, 2021).

(i) Airbus Helicopters Alert Service Bulletin No. EC225-71A019, Revision 2, dated May 21, 2021.

(ii) [Reserved]

(5) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; phone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at airbus.com/helicopters/services/technical-support.html.

(6) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on July 3, 2023.

Michael Linegang, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.